

Customer Behavior Analysis - Project Documentation

1. Introduction

This project analyzes customer behavior, loyalty, pricing effectiveness, and purchasing trends using Excel. Key insights are used to improve business strategy.

2. Data Preparation

- **Loaded Data:** Imported dataset into Power Query for cleaning.
- **Data Cleaning:** Checked for duplicates, converted date formats, formatted currency values, and categorized age groups.
- **New Columns Created:**
 - Age Group: "Young" (<35) & "Old" (>36)
 - Shopping Hour & Day
 - Discount Sensitivity
 - Social Media Influence

3. Data Analysis

3.1 Customer Demographics & Behavior

- Compared spending between age groups.
- Analyzed income levels by category.
- Identified preferred product categories for each age group.

3.2 Customer Loyalty & Retention

- Analyzed return rates per customer.
- Studied impact of customer satisfaction on repeat purchases.

3.3 Pricing & Discount Effectiveness

- Checked if discount-sensitive customers spend more.
- Analyzed discount impact on return rates.
- Evaluated high-income customer interest in discounts.

3.4 Purchase Behavior & Preferences

- Assessed shopping hours & peak sales days.
- Linked product categories to preferred shipping methods.

3.5 Marketing & Ad Engagement

- Measured social media influence on purchase amount.

- Analyzed its effect on product ratings.

3.6 Return Rate & Product Quality

- Checked if low-rated products have higher returns.
- Identified product categories with the most returns.
- Studied dissatisfaction-driven returns.

4. Dashboard & Presentation

- **Dashboard Elements:**
 - Key charts (Purchase, Returns, Discounts, Peak Days)
 - Slicers (Age Group, Discount Sensitivity, Satisfaction, etc.)
- **Presentation Highlights:**
 - Customer insights, loyalty, discount impact, and recommendations.

5. Key Insights & Recommendations

- Younger customers spend more but return fewer items.
- Discounts drive sales but can increase returns.
- Social media engagement influences purchasing decisions.
- Peak sales occur around midday and weekends.
- Improve product quality to reduce return rates.

6. Conclusion

Findings provide actionable insights for strategic decisions in marketing, pricing, and customer experience.